

RAW SEQUENCE LISTING DATE: 10/01/2004 PATENT APPLICATION: US/09/894,030 TIME: 10:40:54

Input Set : A:\PTO VSK.txt

Output Set: N:\CRF4\10012004\I894030.raw

17 <210> SEQ ID NO: 1 18 <211> LENGTH: 2517 19 <212> TYPE: DNA

20 <213 > ORGANISM: Artificial Sequence

22 <220> FEATURE:

23 <223> OTHER INFORMATION: EcoRI-HindIII insert of the pLPVc intregrative plasmid.

25 <400> SEQUENCE: 1

26 gaattccggc tctaaagcga ttctgagagc agtttcttat acaccagcag gaactgcact 60 120 28 tcaacqaqct qqattaacaq gtgggcataa gagttaagat aaatttaaac ttatataaca 30 catcgcttaa agtttttttg ttttaaaaac ttaaaaaaca tggtaaaatt atataaaaac 180 32 ataagaaaga gtgattatat ggaatatgta gttatgataa tcattttatt agcacttttc 240 300 34 tttattttta ctqttttcct aaatacacqt tataqttttq atqaaaaatq cttagtctta 360 36 aaatttggtt tatctaaaac agaaattcca attaatcaaa tagttagtat taaagagtca 38 gacaagtatg gagttgcaga taatatcgat tataaaaattg gtatgccata tgctcaacca 420 40 gatagaattg ttattgaaac tacaaataag cgttttctag tttttttaaa tggagctcaa 480 540 42 caatttattc aaaaqtataa aaqqqttaqt gtttgaacat aaaaaagtac cttcttacaa 44 tagaaggtac ttttttgtat ctataattat taaaaaattta cctaaatttt tatcattatt 600 46 aattcaaaat aaatccataa tagtcaattt tatttagtgt attacaacca attcggatcc 660 48 aagcacccat tagttcaaca aacgaaaatt ggataaagtg ggatattttt aaaatatata 720 780 50 tttatqttac aqtaatattg acttttaaaa aaggattgat tctaatgaag aaagcagaca 52 agtaagcctc ctaaattcac tttagataaa aatttaggag gcatatcaaa tgaactttaa 840 54 taaaattgat ttagacaatt ggaagagaaa agagatattt aatcattatt tgaaccaaca 900 56 aacgactttt agtataacca cagaaattga tattagtgtt ttataccgaa acataaaaca 960 58 aqaaqqatat aaattttacc ctqcatttat tttcttagtg acaagggtga taaactcaaa 1020 60 tacagetttt agaactggtt acaatagega eggagagtta ggttattggg ataagttaga 1080 62 gccactttat acaatttttg atggtgtatc taaaacattc tctggtattt ggactcctgt 1140 64 aaagaatgac ttcaaagagt tttatgattt atacctttct gatgtagaga aatataatgg 1200 66 ttcggggaaa ttgtttccca aaacacctat acctgaaaat gctttttctc tttctattat 1260 68 tocatggact toatttactg ggtttaactt aaatatcaat aataatagta attaccttot 1320 70 acccattatt acagcaggaa aattcattaa taaaggtaat tcaatatatt taccgctatc 1380 1440 72 tttacaggta catcattctg tttgtgatgg ttatcatgca ggattgttta tgaactctat

74 tcaggaattg tcagataggc ctaatgactg gcttttataa tatgagataa tgccgactgt

1500

RAW SEQUENCE LISTING DATE: 10/01/2004 PATENT APPLICATION: US/09/894,030 TIME: 10:40:54

Input Set : A:\PTO VSK.txt

Output Set: N:\CRF4\10012004\1894030.raw

```
76 actittitaca gieggittic taatgicaci aaccigeeee gitagiigaa gaagggatte
    78 gtgtattaca accaattctg tttattgata ggtaataaag ttttttttct atgatttatg
                                                                         1620
    80 aacaagttto ottataattt toaaaaaaaa ataaaaaata tggttgaatt tagatttato
                                                                         1680
    82 ttcctttata ttaaaaaatg taatccggat tgcaaacaaa tqqqqaqqtt ttacaaatqq
    84 aaaaqctatt taaagaagtt aaactcgagg aactcgaaaa ccaaaaaggt agtggattag
    86 gaaaagetea gtgtgetgeg ttgtggetae aatgtgetag tqqeqqtaca attqqttqtq
                                                                         1860
    88 gtggcggagc tgttgcttgt caaaactatc gtcaattctg caqataaaac atttgtagaq
                                                                         1920
    90 ggaatatttt aaatattccc tcatatttaa agcggggatt gaaattqaat aagaaaaaga
    92 aatatgttca tactaaacag tttaatagtc atgattgtgg actagcttgt atctcgtcaa
                                                                         2040
    94 ttttaaagtt tcataacctt aactatggaa ttgatttctt actagaccta attggggata
                                                                         2100
    96 aggaaggeta tagtttaaga gacttaattg ttatttttaa gaagatgggg ataaaaacta
                                                                         2160
    98 qqccacttqa attqcaaqaa aataaqacat tcqaaqccct aaaacaaata aaqctccctt
                                                                         2220
    100 qtataqcttt qttaqaaqqq qaqqaatatq qacattacat aacaatatac qaaattaqaa
                                                                          2280
    102 ataactattt acttgttagt gatcctgata aagacaaaat aactaaaata aaaaaagagg
                                                                          2340
    104 attttgaaag taaattcaca aactttatat tagaaattga caaagagtca attcctgaaa
                                                                          2400
    106 aaqaaaaaqa tcaaaaaaaa cattcttact tttttaaqqa catacttttt aqaaataaat
                                                                          2460
    108 tgategtttt tgtgatttta ttgactteet tgttegttgt gggtettget gaagett
                                                                          2517
    115 <210> SEQ ID NO: 2
    116 <211> LENGTH: 300
    117 <212> TYPE: DNA
    118 <213> ORGANISM: Artificial Sequence
    120 <220> FEATURE:
    121 <223> OTHER INFORMATION: The sublancin-His Tag gene and its corresponding peptide
sequence.
    123 <220> FEATURE:
    124 <221> NAME/KEY: CDS
    125 <222> LOCATION: (1)..(300)
    126 <223> OTHER INFORMATION:
W--> 129 <400> 2
    130 atg gaa aag cta ttt aaa gaa gtt aaa ctc gag gaa ctc gaa aac caa
                                                                            48
    131 Met Glu Lys Leu Phe Lys Glu Val Lys Leu Glu Glu Leu Glu Asn Gln
    132 1
    134 aaa ggt agt gga tta gga aaa gct cag tgt gct gcg ttg tgg cta caa
                                                                            96
    135 Lys Gly Ser Gly Leu Gly Lys Ala Gln Cys Ala Ala Leu Trp Leu Gln
    136
                    2.0
    138 tgt gct agt ggc ggt aca att ggt tgt ggc ggc gcc gtt gct tgt
                                                                           144
    139 Cys Ala Ser Gly Gly Thr Ile Gly Cys Gly Gly Ala Val Ala Cys
    142 caa aac tat cgt caa ttc tgt aga ggt ggt ggt ggg gga ggc ggg gga
                                                                           192
    143 Gln Asn Tyr Arg Gln Phe Cys Arg Gly Gly Gly Gly Gly Gly Gly Gly
    144
            50
                                                                           240
    148 65
                           70
                                               75
    150 gat qat ttc gat cta gat gtt gtg aaa gtc tct aaa caa gac tca aaa
                                                                           288
    151 Asp Asp Phe Asp Leu Asp Val Val Lys Val Ser Lys Gln Asp Ser Lys
    152
                                           90
                                                                           300
    154 atc act ccg caa
    155 Ile Thr Pro Gln
    156
                    100
```

RAW SEQUENCE LISTING

DATE: 10/01/2004

PATENT APPLICATION: US/09/894,030

TIME: 10:40:54

Input Set : A:\PTO VSK.txt

Output Set: N:\CRF4\10012004\1894030.raw

- 159 <210> SEQ ID NO: 3 160 <211> LENGTH: 100 161 <212> TYPE: PRT 162 <213> ORGANISM: Artificial Sequence 164 <220> FEATURE: 165 <223> OTHER INFORMATION: The peptide sequence for sublancin-His Tag. 167 <400> SEQUENCE: 3 169 Met Glu Lys Leu Phe Lys Glu Val Lys Leu Glu Leu Glu Asn Gln 173 Lys Gly Ser Gly Leu Gly Lys Ala Gln Cys Ala Ala Leu Trp Leu Gln 20 177 Cys Ala Ser Gly Gly Thr Ile Gly Cys Gly Gly Gly Ala Val Ala Cys 181 Gln Asn Tyr Arg Gln Phe Cys Arg Gly Gly Gly Gly Gly Gly Gly Gly

- 189 Asp Asp Phe Asp Leu Asp Val Val Lys Val Ser Lys Gln Asp Ser Lys 85 90
- 193 Ile Thr Pro Gln
- 194 100

VERIFICATION SUMMARY

DATE: 10/01/2004

PATENT APPLICATION: US/09/894,030

TIME: 10:40:55

Input Set : A:\PTO_VSK.txt

Output Set: N:\CRF4\10012004\1894030.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application No

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:129 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:2,Line#:126